PROCEDURE

Electrocauterization

Electrocauterization uses heat from an electrical device to remove tissue or control bleeding.

PURPOSE
Removing unwanted tissue or sealing bleeding blood vessels

PROCEDURE TYPE
Therapeutic; surgical, endoscopic, or bedside electrical heat treatment

WHERE IT IS DONE
Outpatient clinic, operating theatre, endoscopy suite, or bedside

ANAESTHESIA
Local, sedation, or general, based on treatment site

HOW LONG IT TAKES
Usually 5 to 60 minutes; major procedures take longer

PREPARATION
Site-specific fasting and medicine instructions; sometimes none

RECOVERY
Usually same day; no driving after sedation or general anaesthesia

MAIN RISKS
Bleeding, infection, burns, scarring, or nearby tissue injury

RESULTS
Treatment effect immediate; pathology takes several days

Overview

Electrocauterization uses a heated instrument to destroy unwanted tissue or seal blood vessels. It may be used on the skin, during an operation, or through an endoscope-a thin, flexible tube used to look inside the body.

The term is often used broadly for electrosurgery . In true electrocautery, electricity heats the instrument but does not enter your body. In many electrosurgical procedures, a controlled electrical current passes through tissue to cut it or stop bleeding. Your healthcare team may use "cautery" for either method.

Treatment ranges from a brief skin procedure under local anaesthesia to one part of a larger operation under general anaesthesia. What you experience will mainly reflect where treatment is performed and whether another procedure is being done at the same time.

Why the procedure is performed

Electrocauterization can cut, shrink, or destroy tissue. It can also seal small blood vessels so that bleeding stops.

It may be used to:

If a growth could be cancerous or its diagnosis is uncertain, your healthcare professional may take a biopsy before using a method that destroys tissue. A biopsy preserves tissue so it can be examined under a microscope.

- Control bleeding during surgery or after an injury
- Remove certain non-cancerous skin growths, such as skin tags
- Treat selected warts or other surface lesions
- Destroy abnormal tissue when sampling is not required
- Control bleeding inside the digestive tract during endoscopy
- Reduce repeated nosebleeds by sealing a visible blood vessel
- Help treat abnormal tissue as part of another operation

Who should and should not have it

Electrocauterization may be offered when heat treatment can remove a specific area of tissue or control bleeding without a larger operation. Whether it is suitable depends on the treatment site, the likely diagnosis, your health, and the expected cosmetic or functional result.

It may be avoided or delayed when:

A pacemaker, implantable defibrillator, nerve stimulator, cochlear implant, or similar electronic device does not always prevent treatment. However, the team needs to know about it in advance. Certain forms of electrosurgery can interfere with implanted devices, so extra planning, monitoring, or a different technique may be needed.

Tell the team if you are pregnant or could be pregnant. This does not automatically rule out necessary treatment, but an elective procedure may be delayed or adjusted.

- A suspicious growth needs to be biopsied before it is destroyed
- There is an active infection at the planned treatment site
- A bleeding disorder or blood-thinning medicine creates an unacceptable bleeding risk
- A health problem makes the planned anaesthesia unsafe until it is stabilised

- The expected scar or tissue damage would be difficult to accept
- Another method is more likely to preserve nearby nerves, organs, or healthy tissue

How to prepare

Your treating facility's own instructions take priority because preparation differs greatly between a minor skin treatment and cautery performed during surgery or endoscopy.

Before the procedure, tell the team about:

Do not stop a blood thinner like warfarin or apixaban unless the clinician responsible for the procedure tells you to. Stopping it without a plan can increase the risk of a blood clot, stroke, or other serious problem.

A small skin procedure may need little preparation. You may be asked to keep the area clean and avoid applying creams or cosmetics that day. For sedation or general anaesthesia, you will receive instructions about when to stop eating and drinking. You may also need an adult to take you home and stay with you afterward.

- All prescription medicines, over-the-counter medicines, and supplements
- Blood thinners, including anticoagulant and antiplatelet medicines
- Allergies or previous reactions to anaesthesia, dressings, or skin products
- Pacemakers and other implanted electronic devices
- Bleeding problems, diabetes, pregnancy, or problems with wound healing

What happens during the procedure

The team confirms the treatment site and reviews the plan with you. Monitoring equipment may be attached if you are receiving sedation or general anaesthesia.

For a skin procedure, the area is usually cleaned and numbed with an injection of local anaesthetic. The injection may sting briefly. You should then feel pressure or movement rather than sharp pain.

The clinician applies a fine heated tip or electrosurgical instrument to the target tissue. The device may cut tissue, destroy its surface, or seal a bleeding vessel. If monopolar electrosurgery is used, a return pad may be placed on your skin to complete the electrical circuit safely. Bipolar devices pass current between two tips and usually do not need a return pad.

A suction device may remove surgical smoke. You may still notice a burning smell, but this does not mean that you are being burned beyond the intended treatment area.

A dressing may be applied afterward. If tissue was collected before or during treatment, it may be sent to a laboratory for examination.

Recovery and what to expect afterward

Pain: A treated skin area may feel sore, tender, or mildly burning after the anaesthetic wears off. Internal procedures can cause discomfort related to the larger operation or endoscopy. Use only the pain relief recommended in your discharge instructions.

Eating: After local anaesthesia alone, you can usually eat normally unless the treatment involved your mouth or digestive tract. After sedation or general anaesthesia, start eating and drinking according to the facility's instructions.

Activity: Keep a skin wound clean and follow instructions about dressings, bathing, exercise, and swimming. Avoid picking at a scab because this can increase bleeding and scarring. Restrictions after internal treatment will be based on the procedure and treatment site.

Driving: You may be able to drive after a minor procedure using local anaesthesia alone if movement is comfortable and your clinician has not restricted it. Do not drive after sedation or general anaesthesia for the period stated by your facility. Arrange a ride home in advance.

Work: Many people return to desk work the same day or the next day after a small skin treatment. You may need more time if the area is painful, your work is physical, or cautery was part of a larger procedure.

Risks and possible complications

Electrocauterization intentionally damages selected tissue, so some local soreness and tissue change are expected. Possible complications include:

The balance of risks differs between a tiny skin treatment and electrocautery used inside the body. Ask how the location and size of your treatment affect these risks.

- Bleeding during or after treatment
- Infection
- A burn or injury to nearby healthy tissue
- Scarring or a change in skin colour

- Slow or incomplete wound healing
- Nerve injury, depending on the treatment site
- Reopening of a sealed blood vessel
- Return of the treated growth or abnormal tissue
- Interference with an implanted electronic device
- Reactions related to local anaesthetic, sedation, or general anaesthesia

Results and follow up

The immediate result-such as removal of a growth or control of bleeding-is often clear at the end of the procedure. Your clinician may explain whether the treatment appeared complete.

If tissue was sent to a laboratory, pathology results usually take several days and sometimes longer. Pathology is the examination of tissue to identify what it is and whether further treatment is needed. Ask how and when you will receive the result.

Routine follow-up may involve a wound check, dressing removal, review of pathology, or assessment of whether bleeding or abnormal tissue has returned. Attend follow-up even if the area feels well, particularly when the procedure treated a suspicious growth or internal bleeding.

Alternatives

The alternatives depend on why electrocauterization was offered.

Observation avoids a procedure, wound, and scar. It may be reasonable for a harmless growth that is not changing or causing problems, but it does not remove the tissue or provide a diagnosis.

Medicines can treat some warts, abnormal tissue, or bleeding conditions without heat. They often act more slowly, may irritate surrounding tissue, and may not work for every lesion.

Cryotherapy freezes tissue. It is quick and does not involve electrical current, but it can require repeat treatment and may cause blistering or skin-colour changes.

Surgical excision removes the entire area with a scalpel and usually provides tissue for laboratory testing. It may give a clearer diagnosis but generally needs stitches and can leave a larger scar.

Laser treatment can target some lesions or blood vessels precisely. It may not be readily

available, can be more costly, and still carries burn, pigment-change, and scarring risks.

For internal bleeding, alternatives may include clips, bands, injected medicines, pressure, interventional radiology, or open surgery. These methods have different success rates and risks based on the bleeding site. Choosing not to treat active bleeding may allow it to continue or return.

When to call your healthcare team

For routine questions, contact the treating team if you are unsure how to care for the wound, when to remove a dressing, or when to restart a medicine.

Seek prompt medical advice for:

Seek emergency care for heavy or uncontrolled bleeding, trouble breathing, fainting, severe chest or abdominal pain after an internal procedure, vomiting blood, or passing a large amount of red or maroon blood.

- Increasing redness, warmth, swelling, pus, or worsening pain
- Fever or feeling increasingly unwell
- Bleeding that continues despite the pressure advised in your instructions
- A wound that opens or is not healing as expected
- New numbness, weakness, or loss of function near the treated area
- Return of the original bleeding or growth

Common questions

Will I be asleep?

Not always. Minor skin treatment is usually done while you are awake with local anaesthetic. Cautery performed during endoscopy or major surgery may involve moderate sedation, deep sedation, or general anaesthesia.

Can I drive home?

Not after sedation or general anaesthesia. Arrange for someone to take you home. Driving may be possible after local anaesthesia alone, but only if your facility allows it and you can control the vehicle safely.

How painful is electrocauterization?

The numbing injection can sting. Once the area is numb, you may feel pressure or movement rather than sharp pain. Mild soreness or burning afterward is common.

Will it leave a scar?

A scar or skin-colour change is possible because tissue is intentionally treated. Its appearance depends on the depth and location of treatment, your skin, and how the wound heals.

When will I know the result?

Control of bleeding or removal of visible tissue is usually apparent immediately. If a sample was sent for pathology, the laboratory result generally takes several days.

Can the problem come back?

Yes. A growth may return if some affected tissue remains, and a sealed blood vessel can bleed again. Your follow-up plan should explain what changes to watch for.

Sources

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